CONTENTS TO VOLUME 43

CONTENTS Vol. 43, No. 1

1 Effect of Surface Roughness on Nitrogen Flow in a Microchannel Using the Direct Simulation Monte Carlo Method **Hongwei Sun and Mohammad Faghri**

9 Numerical Computation on the Control of Aerial Flow by the Magnetizing Force in Gravitational and Nongravitational Fields **Masato Akamatsu, Mitsuo Higano, Yoshio Takahashi, and Hiroyuki Ozoe**

31 A Numerical Study for the Role of Natural Convection in the Melting of a GaSb/InSb/GaSb Sandwich System **Yasunori Okano, Jun Shimizu, Yasuhiro Hayakawa, Masashi Kumagawa, Akira Hirata, and Sadik Dost**

47 Pressure Drop and Heat Transfer in Spanwise-Periodic Fluted Channels **Takahiro Adachi and Haruo Uehara**

65 Optimization of Natural Convection Heat Transfer from a Cylinder with High Conductivity Fins **Bassam A/K Abu-Hijleh**

83 Prediction of Onset of Boundary Layer Transition in Film Condensation on a Horizontal Elliptical Cylinder **M. Asbik, H. Boushaba, R. Chaynane, B. Zeghmati, and A. Khmou**

CONTENTS Vol. 43, No. 2

111 Local Zoom Computation of Two-Phase Flows in Steam Generators Using a Local Defect Correction Method **M. Belliard and M. Grandotto**

137 Enclosed Buoyant Convection of a Variable-Viscosity Fluid Under Time-Periodic Thermal Forcing **Gi Bin Kim, Jae Min Hyun, and Ho Sang Kwak**

155 An Inverse Design Problem in Determining the Optimum Shape of Spine and Longitudinal Fins **Cheng-Hung Huang and Jan-Hsiang Hsiao**

179 Entropy Analysis in an Au-Cr Two-Layer Assembly During Laser Shortpulse Heating **Bekir Sami Yilbas**

201 Winglet-Type Vortex Generators with Common-Flow-Up Configuration for Fin-Tube Heat Exchangers **A. Jain, G. Biswas, and D. Maurya**

CONTENTS Vol. 43, No. 3

221 Temperature Distribution of an Optical Fiber Traversing Through a Chemical Vapor Deposition Reactor **Patricia O. Iwanik and Wilson K. S. Chiu**

239 Heat Transfer and Hydromagnetic Control of Flow Exit Conditions Inside Oscillatory Squeezed Thin Films **A.-R. A. Khaled and K. Vafai**

259 Effect of Heated Wall Position on Mixed Convection in a Channel with an Open Cavity **Oronzio Manca, Sergio Nardini, Khalil Khanafer, and Kambiz Vafai**

283 Mixed Convection Induced by MEMS-Based Thermal Shear Stress Sensors **A. Appukuttan, W. Shyy, M. Sheplak, and L. Cattafesta**

307 Visualization and Simulation of the Natural-Convection Flow Above Horizontal Wavy Plates **S. Prétot, J. Miriel, Y. Bailly, and B. Zeghmati**

327 Thermal Equilibrium in Transient Conjugated Forced-Convection Channel Flow **B. A. Abu-Hijleh, M. A. Al-Nimr, and M. A. Hader**

CONTENTS Vol. 43, No. 4

341 Combined Mass Suction and Buoyancy Effects on Heat Transfer and Gas Flow in a Fuel Cell Duct **Jinliang Yuan, Masoud Rokni, and Bengt Sundén**

367 Numerical Investigation of Heat Transfer in Intensive Cooling Tubes with Turbulence Bushes **Sandra Kühne, Gerd H. D. Mühlenbruch, and Jürgen Schmidt**

385 Numerical Study of Heat Transfer During Unsaturated Flow in Dual-Scale Porous Media **Rajendra S. Jadhav and Krishna M. Pillai**

409 Numerical Study of a Heated Pulsed Axisymmetric Jet in Laminar Mode **Salwa Marzouk, Hatem Mhiri, Salem El Golli, Georges Le Palec, and Philippe Bournot**

431 Thermosolutal Transfer Within Trapezoidal Cavity **Mahammed Boussaid, Abderrahmane Djerrada, and Mustapha Bouhadef**

CONTENTS Vol. 43, No. 5

449 Numerical Computation for Natural Convection of Air in a Cubic Enclosure Under Combination of Magnetizing and Gravitational Forces **Ryoji Shigemitsu, Toshio Tagawa, and Hiroyuki Ozoe**

465 Flow and Heat Transfer Around a Surface-Mounted Blunt Obstacle **S. Bhattacharyya and S. Mahapatra**

481 Transient Linear and Nonlinear Heat Conduction in Weakly Modulated Domains **Mizanur R. Siddique and Roger E. Khayat**

501 A Model of Coupled Liquid Moisture and Heat Transfer in Porous Textiles with Consideration of Gravity **Yi Li and Qingyong Zhu**

525 Numerical Investigation of Flow Through a Cavity with Internal Heat Generation **Gustavo C. Buscaglia and Enzo A. Dari**

543 Natural Convection in a Partitioned Trapezoidal Cavity Heated From the Side **F. Moukalled and M. Darwish**

CONTENTS Vol. 43, No. 6

565 Inverse Boundary Design Radiation Problem in Absorbing-Emitting Media with Irregular Geometry **S. M. Hosseini Sarvari, S. H. Mansouri, and J. R. Howell**

585 Computation of Turbulent Flow in Porous Media Using a Low-Reynolds k-ε Model and an Infinite Array of Transversally Displaced Elliptic Rods **Marcos H. J. Pedras and Marcelo J. S. de Lemos**

603 Numerical Analysis of the Stress Jump Interface Condition for Laminar Flow Over a Porous Layer **Renato A. Silva and Marcelo J. S. de Lemos**

619 Entropy Generation on a Crossflow Heat Exchanger Including Three Gas Streams with Different Arrangements and the Effect of Longitudinal Wall Conduction **Ping Yuan and Hong-Sen Kou**

639 Numerical Investigation of Heat Transfer of a Heated Channel with an Oscillating Cylinder **Wu-Shung Fu and Bao-Hong Tong**

659 Modified Macroscopic Turbulence Modeling for the Tube with Channel Geometry in Porous Media **Kilyoan Chung, Kwan-Soo Lee, and Woo-Seung Kim**

CONTENTS Vol. 43, No. 7

669 Computational Analysis of Turbulent Fluid Flow and Heat Transfer Over an Array of Heated Modules Using Turbulence Models **Pradip Majumdar and Prasanta Deb**

693 Numerical Study of Turbulent Natural Convection in a Side-Heated Square Cavity at Various Angles of Inclination **M. A. R. Sharif and W. Liu**

717 Spectral Methods with Postprocessing for Numerical Hyperbolic Heat Transfer **Scott A. Sarra**

731 New Evaluation of the k-ε Turbulence Model for Free Buoyant Plumes **C. P. Brescianini and M. A. Delichatsios**

753 Natural Convection in a Thermally Stratified Wavy Vertical Porous Enclosure **B. V. Rathish Kumar and Shalini**

CONTENTS Vol. 43, No. 8

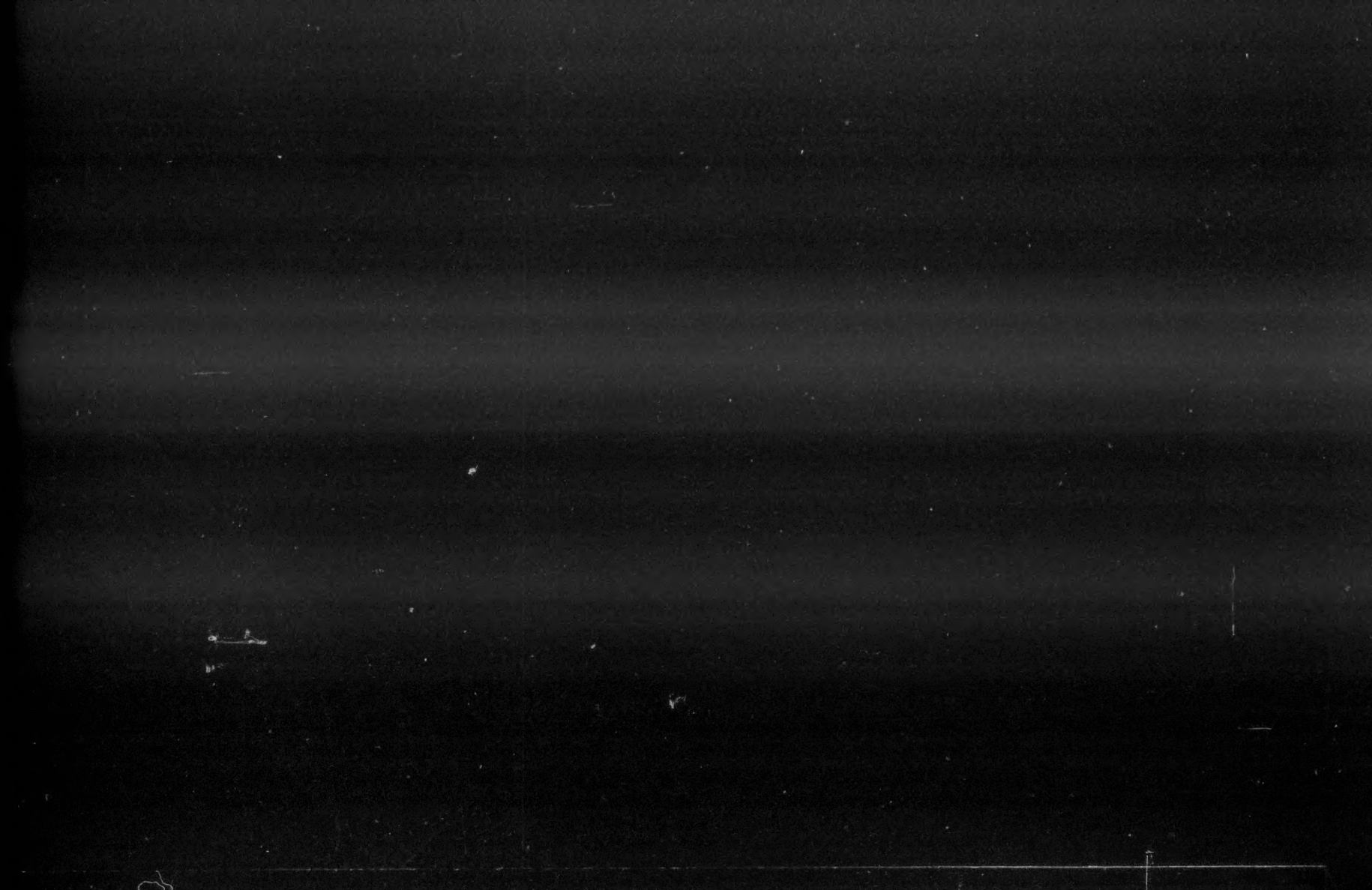
777 Method for Computing the Interaction of Fire Environment and Internal Solid Regions **J. L. Consalvi, B. Porterie, and J. C. Loraud**

807 Investigation of Radiative Heat Transfer in Complex Geometries Using Blocked-Off, Multiblock, and Embedded Boundary Treatments **Do Young Byun, Seung Wook Baek, and Man Young Kim**

827 Enhancement of Heat Transfer from Surface-Mounted Block Heat Sources in a Duct with Baffles **Yeong-Ley Tsay, Jen-Chieh Cheng, and Tsai-Shou Chang**

843 Jet Impingement onto a Hole with Constant Wall Temperature **Bekir Sami Yilbas, S. Z. Shuja, and M. O. Budair**

867 Numerical Simulation of Two-Dimensional Heat and Moisture Transfer During Drying of a Rectangular Object **M. M. Hussain and I. Dincer**

Following page 878:

Title Page to Volume 43
Author/Subject Indices to Volume 43
Table of Contents to Volume 43